

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A classifier for segregating particles by size or density, said classifier comprising:
 - a fluidization chamber adapted to contain a fluidized bed;
 - a fluidization ~~means~~ device for providing a flow of fluidization fluid to enter into the fluidization chamber from below such that the fluidization fluid may flow upwardly in the chamber; and
 - at least one array of ~~one or more~~ inclined plates mounted within the fluidization chamber positioned such that in use, particles elutriated by the upwardly flowing fluidization fluid within the chamber flow upwardly into the array where the particles are caused to be segregated ~~above or below~~ between the plates, and to report above or below the plates according to ~~their~~ the size or density of the particles.
2. (Canceled)
3. (Currently Amended) A classifier as claimed in claim ~~[[2]]~~ 1 wherein said array of inclined plates comprises an array of parallel equally spaced plates extending across said fluidization chamber.
4. (Canceled)
5. (Currently Amended) A classifier according to claim ~~[[2]]~~ 1 wherein two or more arrays of inclined plates are provided, each array being vertically spaced from the or each other array, and the arrays dividing the fluidization chamber into zones.
6. (Original) A classifier as claimed in claim 5 wherein the length of each plate is an array, the angle of inclination of the plates, and the spacing between plates in that array are

selected to enable particles of a predetermined size or density to pass through the array when elutriated at a predetermined rate by the fluidization fluid, while inhibiting particles of greater size or density from passing through the array.

7. (Currently Amended) A classifier as claimed in claim [[2]] 1 wherein a feed fluid incorporating particles to be classified is fed into the fluidization chamber between two ~~said~~ of ~~the~~ arrays of inclined plates.

8. (Previously Presented) A classifier as claimed in claim 1 wherein the particles are fed into the fluidization chamber with the fluidization fluid.

9. (Currently Amended) A method of classifying particles by size or density, ~~said~~ the method comprising the steps of:

providing a fluidized bed within a fluidization chamber in which is positioned ~~one or more~~ at least one array of inclined plates; and

feeding the particles into the fluidized bed such that they flow upwardly into the array, for causing the particles to be segregated between the plates and to report above or below the plates according to the size or density of the particles; and

withdrawing particles ~~form~~ from the chamber at one or more predetermined locations.

10. (Original) A method as claimed in claim 9 wherein the chamber is provided with two or more arrays of said inclined plates, each array being vertically spaced from the or each other array thereby dividing the fluidization chamber into zones, and wherein the withdrawal of particles from the chamber comprises withdrawal from a selected one or more of said zones.

11. (Currently Amended) A method as claimed in claim 9 ~~wherein~~ further comprising providing the said fluidized bed is provided with fluidization fluid at a predetermined rate ~~so as~~ selected to achieve ~~desired~~ selected separation of sizes or densities above and below ~~said~~ the

inclined plates, in combination with ~~selected~~ selecting sizes, inclination and spacings of ~~said~~ the inclined plates.

12. (New) A classifier as claimed in claim 1, further comprising the fluidization chamber having a bottom region and an entrance for the fluidization fluid in the bottom region of the fluidization chamber.